

More “mathy”



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ARE WE READY FOR THE JOBS OF THE FUTURE?

<http://www.youtube.com/watch?v=lwCEkleilNQ>

Math-Yes we can!!!!!!!



How do we....

CONTRIBUTE

?

The 8 common core math practices

1.

Make sense of problems & persevere in solving them

2.

Reason abstractly & quantitatively

3.

Construct viable arguments & critique the reasoning of others

4.

Model with mathematics

5.

Use appropriate tools strategically

6.

Attend to precision









7.

Look for & make use of structure

8.

Look for & express regularity in repeated reasoning

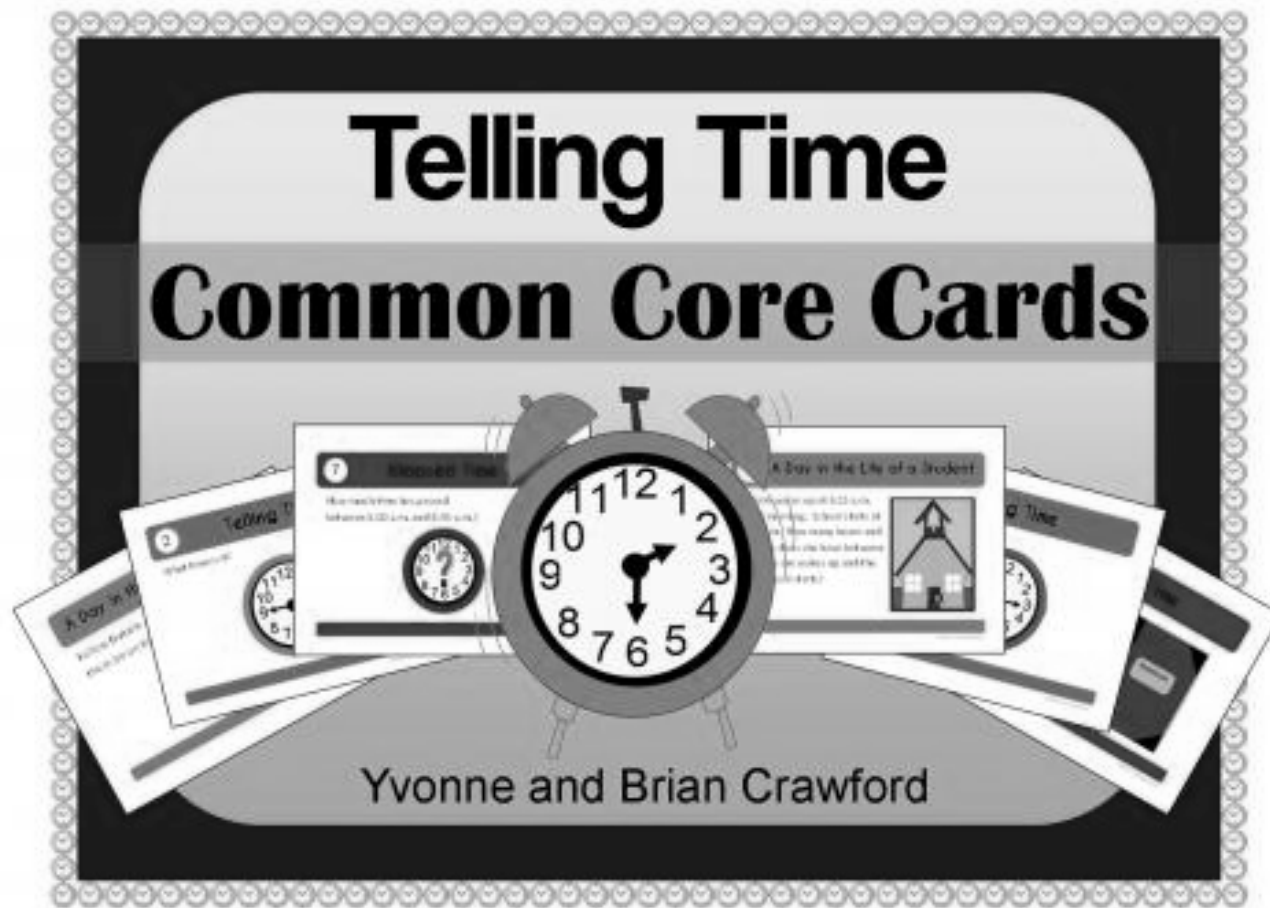
So what does that mean?

The Eight Mathematical Practices		
1	I can solve problems without giving up.	
2	I can think about numbers in many ways.	
3	I can explain my thinking and try to understand others.	
4	I can show my work in many ways.	
5	I can use math tools and tell why I chose them.	
6	I can work carefully and check my work.	
7	I can use what I know to solve new problems.	
8	I can solve problems by looking for rules and patterns.	

K-8 Math Content Standards

K	1	2	3	4	5	6	7	8
Measurement & Data						Statistics & Probability		
Counting & Cardinality		Number & Operations—Fractions				Ratios & Proportional Relationships		Functions
Number & Operations in Base Ten						The Number System		
Operations & Algebraic Thinking						Expressions & Equations		
Geometry								

**Tell and write time in hours and half-hours
using analog and digital clocks.**



CCSS.Math.Content.1.MD.B.3

High School Math Content Standards

High School: Number and Quantity

High School: Algebra

High School: Functions

High School: Modeling

High School: Geometry

High School: Statistics & Probability

Question?

How can I make
make instruction
more “mathy”?

Try some mental math

Hundred Board									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Grade 6 Math Performance Task

- Your class and your teacher are going on a field trip. There are 3 possible choices. In your task you will determine where the class should go on the field trip based on survey results and the cost per student.
- Write a short note to your teacher stating where you think the class should go based on how you evaluate all the different factors, including students votes, costs, distance an what you think will be fun.

Math and culture

Famous people who contributed to the math field



kilo

grams

Metric System

kilometer

litre

meter

How do math operations differ?





















This is how David was taught to do long division:

$$\begin{array}{r} \overline{493} \mid 5 \\ 43 \mid 98,6 \\ 30 \end{array}$$

And this is how I was taught way back in 5th grade:

$$\begin{array}{r} 98.6 \\ 5 \overline{) 493} \\ \underline{45} \\ 43 \\ \underline{40} \\ 3.0 \end{array}$$

Mayan counting system

 0	 1	 2	 3	 4
 5	 6	 7	 8	 9
 10	 11	 12	 13	 14
 15	 16	 17	 18	 19

Mayan math

Answer the following problems using the Mayan symbols

1. $\bullet \bullet + \text{—} = \text{—}$

3. $\text{—} + \text{—} = \text{—}$

5. $\begin{array}{c} \text{—} \\ \text{—} \\ \text{—} \end{array} - \bullet \bullet \bullet = \text{—}$

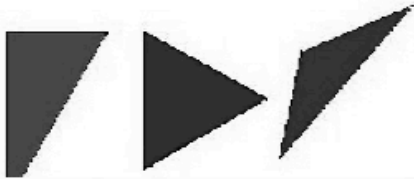
7. $\begin{array}{c} \bullet \\ \text{—} \\ \text{—} \\ \text{—} \end{array} - \begin{array}{c} \bullet \bullet \bullet \bullet \\ \text{—} \end{array} = \text{—}$

Find authentic examples

- Ludovic mesure 1,40 m. Sophie mesure 45 cm de moins que Ludovic et caroline 13 cm de plus que Sophie.
- Quelles sont les tailles de Sophie et de Caroline ?

Authentic materials from a math site in France

Un triangle est un polygone qui possède :
3 côtés; 3 sommets et 3 angles.

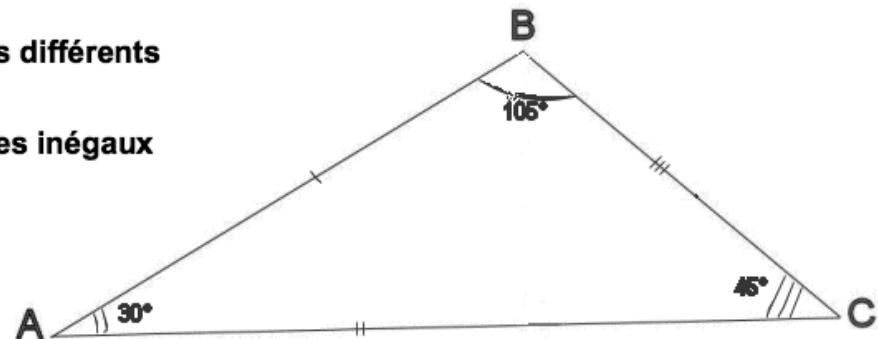


Les triangles

Triangle quelconque

- 3 côtés différents
- 3 angles inégaux

Tracer un triangle quelconque



La somme des angles est égale à 180° .





Mathématique: exercices



VOIR AUSSI:

Opérations

Problèmes

En téléchargement

Leçons

Sommaire

Nombres naturels

Nombres décimaux

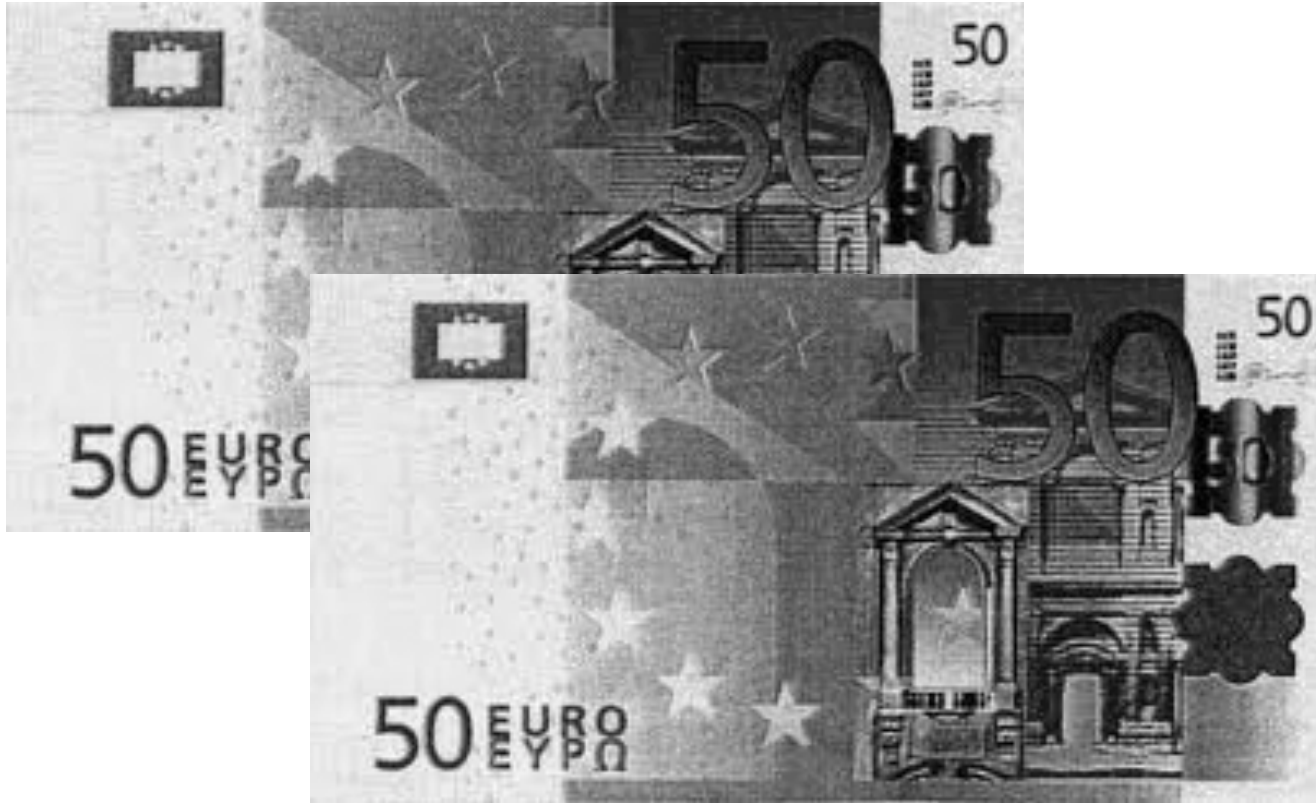
Mesures

Fractions

Géométrie

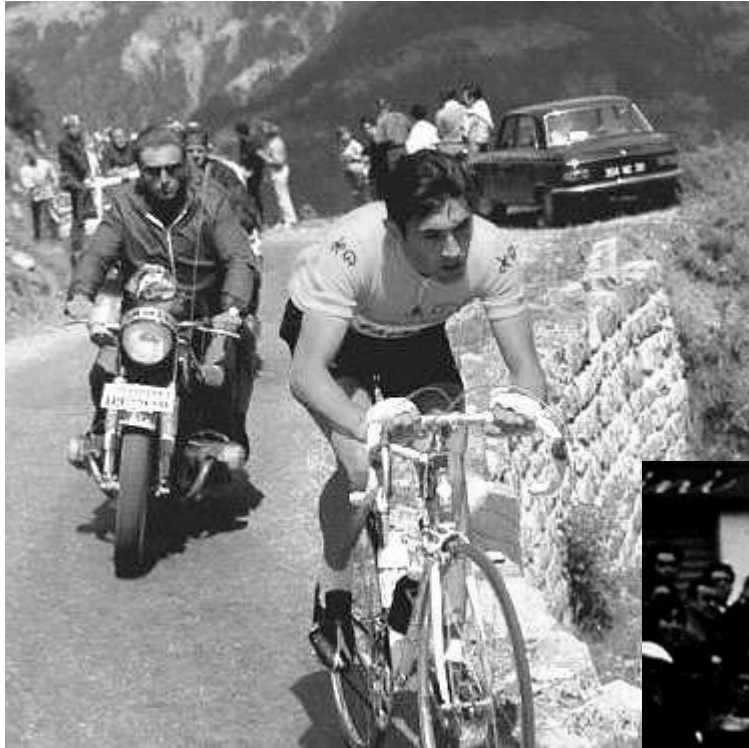
Proportionnalité

Ça fait combien?-How much?





Stage 8
The great Eddy Merckx



Eddy Merckx won an astonishing **35%** of races he entered...



Eddy Merckx won the 1969 Tour de France with an average speed of 22 miles per hour.

In 2010 the winner Alberto Contador covered the 3,642 km in 92 hours.




Who had the highest average speed?



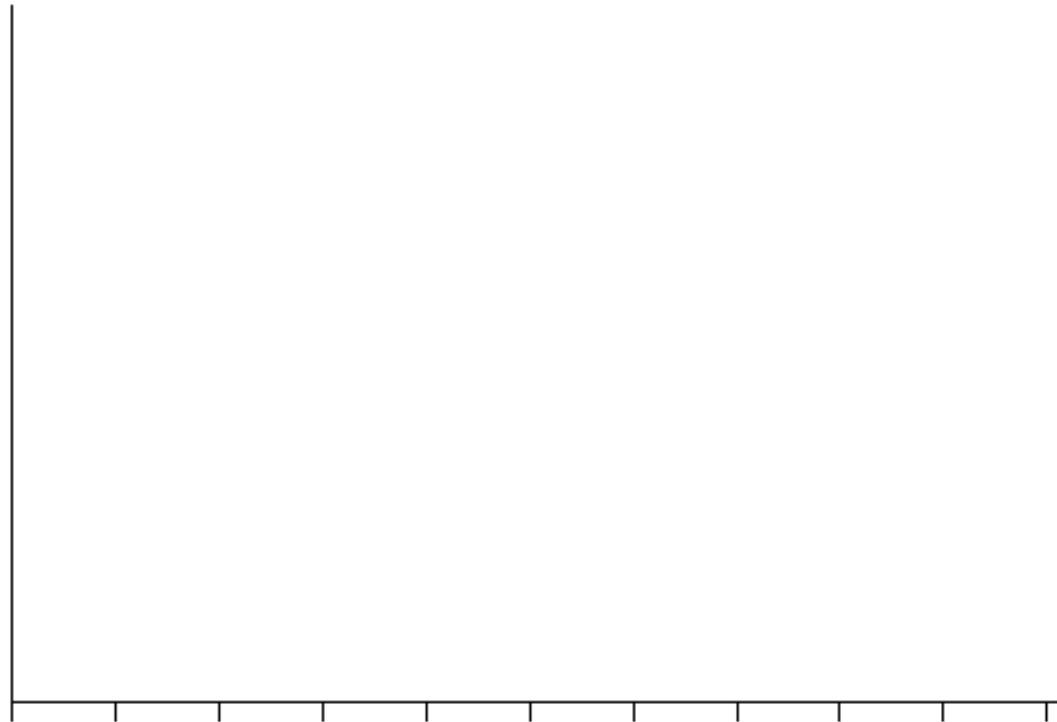
African animals

- Students will explore measurement data for a range of species found in the African savannah. Students will identify the data necessary to fill in a table, and will then use the data in this table to construct and interpret bar charts for a range of different measurements (height, length, weight).

Animals of the African Savannah: Measurement Factsheet

 <p>© J & A Scott / www.photoshot.com</p>	 <p>© J & A Scott / www.photoshot.com</p>	 <p>© The Rhino Foundation / www.rhino.org.uk</p>
<p>Lion (<i>Panthera leo</i>)</p> <p>Height: 1.2 m Length: 2.1 m Weight: 195 kg</p>	<p>African elephant (<i>Loxodonta africana</i>)</p> <p>Height: 3.3 m Length: 6.75 m Weight: 6,000 kg</p>	<p>White rhinoceros (<i>Ceratotherium simum</i>)</p> <p>Height: 1.78 m Length: 3.85 m Weight: 2,300 kg</p>

3. Draw a bar chart that shows the height of each animal on the factsheet. Think carefully about which measurement to use (m or cm) and don't forget to label your graph!



4. Look at the graph. What is the name of the tallest animal?

Daily Life

Marie-Rose's busy day

★★★★★ 6 votes
0 comments



This worksheet is based around the daily routine of Marie-Rose from Rwanda. In this activity, pupils compare their daily lives with Marie-Rose's and use fractions and decimals to help them. The sheet can be used to compare lives and as a start of discussion about living in a diverse world.



[Marie-Rose-busy-day.pdf \(109 KB\)](#)

Below is the daily routine for Marie-Rose from Rwanda. She is very busy all day and doesn't have much time to relax.

6AM	7AM	7.30AM	8AM	12.30PM	1.15PM	4PM	4.30PM	5.30PM	7.30PM	9PM
<i>Get up: 1 mile walk to the well to fetch water</i>	<i>Breakfast: porridge, if there is any Clean the house</i>	<i>Another 1 mile walk – this time up to a big hill to school</i>	<i>Morning lessons: maths, handwriting, Rwandan and French</i>	<i>Lunch: bananas and maize meal Play games with Grace</i>	<i>Afternoon lessons: English, gardening</i>	<i>End of school day 1 mile walk home again</i>	<i>Fetch firewood, chop grass for goats</i>	<i>Cook supper on a small wood stove – beans and sweet potatoes</i>	<i>Eat meal Wash up and do homework, if there is time</i>	<i>Often there is no paraffin for lamp so no light – go to bed</i>

Tasks

- 1 Look at her day. Decide which part of the day falls into the three following categories: Work/Exercise, School or Play. Choose three colours to represent these and colour in the blocks of her daily routine. *What do you notice?*

-
- 2 Count up the number of hours that Marie-Rose spends doing each of these activities. Not all of them are whole numbers; write this as a fraction and then as a decimal. E.g. *4 hours (fraction) is the same as 4.5 hours (decimal)*

WORK/EXERCISE:

SCHOOL:

PLAY:

- 3 The total number of hours in her day is 15. Calculate what fraction of her day is spent doing each of the three activities. To do this you will need to work out what the common denominator is for all the fractions.

WORK/EXERCISE:

SCHOOL:

PLAY:

- 4 Now draw out a table for your own day from 6AM to 9PM and work out how much time you spend doing each of the three activities.

Architecture and Math



Eiffel Tower and math

How do the uses of triangles and squares support the overall stability of the Eiffel Tower?



Math in the Real World: the Great Wall of China



Just how long is the Great Wall of China? It is so long, and was built over such a long period of time, that it has been very hard to say for sure. Experts are still trying to figure it out! But we now know more about at least one major section of the wall that was built during the Ming Dynasty.

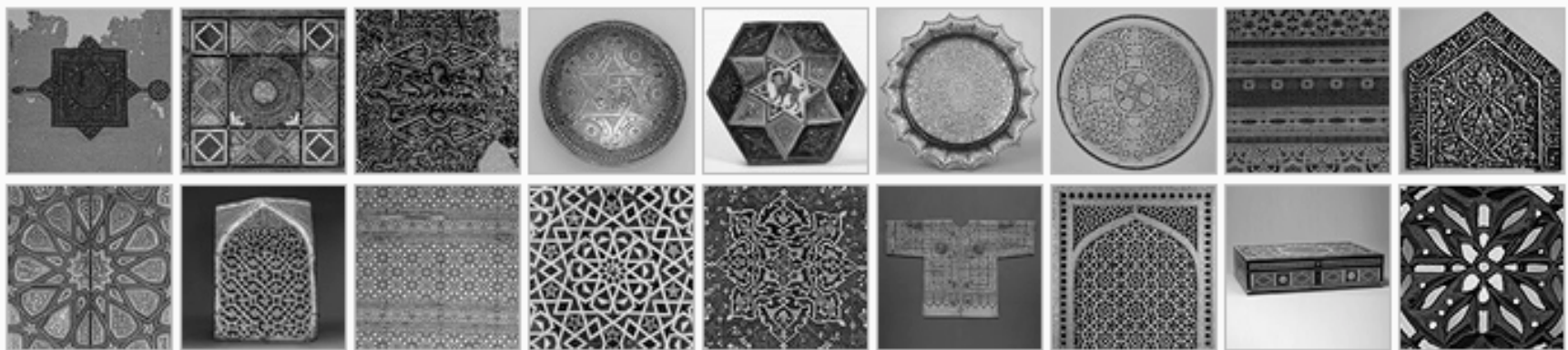
This section is 8,851.8 km long. It has 723 beacon towers, 7,062 lookout towers, and 3,357 wall platforms.

Test your real-world math abilities with these questions! Be sure to show your work.

1. If there was one person posted to guard every beacon tower, lookout tower, and wall platform, how many people would be needed in all?

Math in Art

Geometric Patterns in Islamic Art



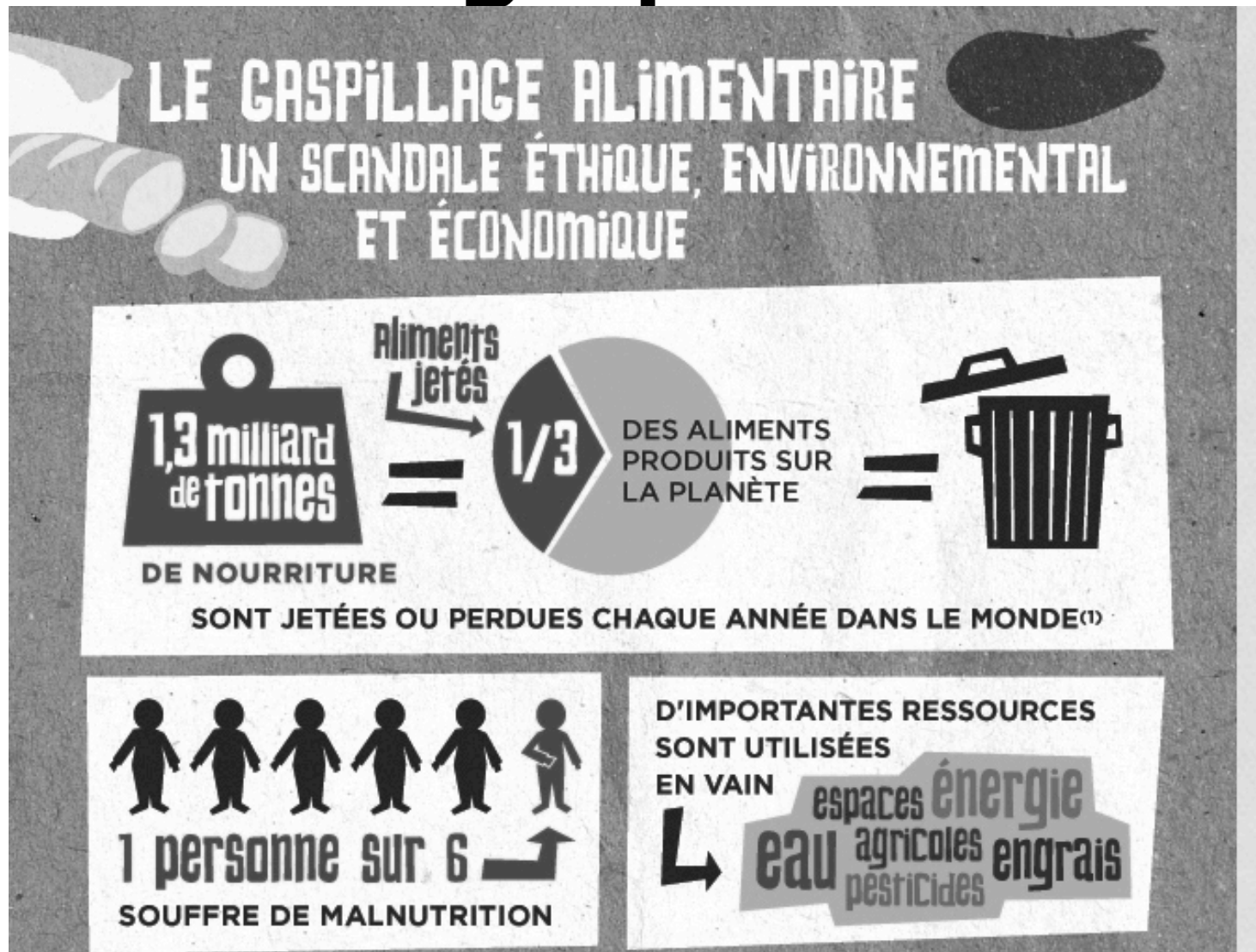
[VIEW SLIDESHOW](#)

Design a mask using geometry

In this lesson, students actively participate in differentiated learning experiences as mask makers as they analyze and evaluate how to make mask using geometric shapes.



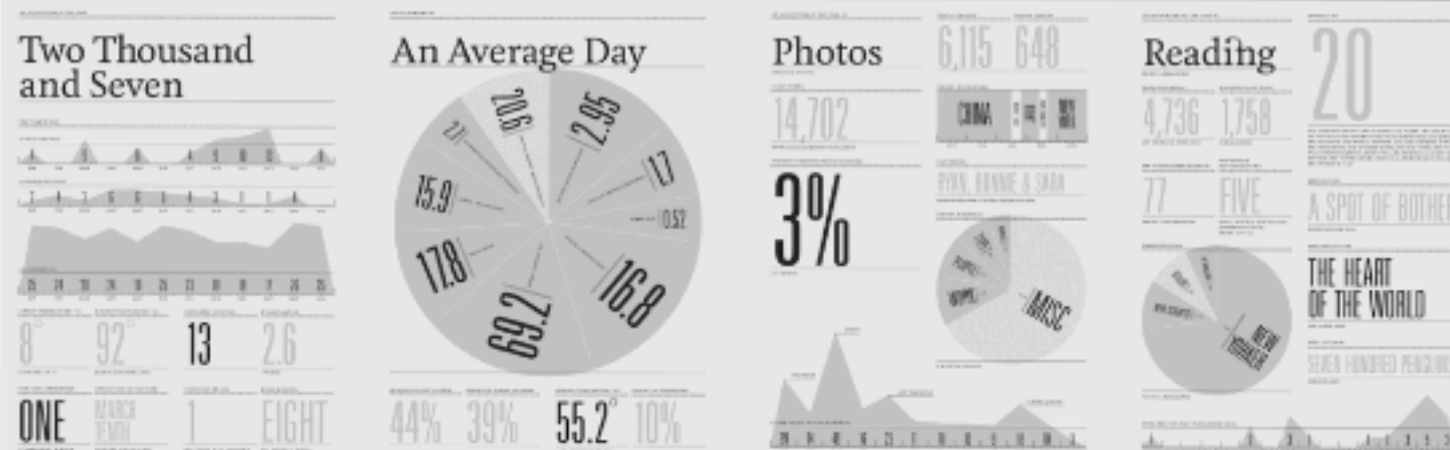
Infographic



Information Literacy

Infographics are a popular way to explain complex data/information.

make an infographic about yourself



Use a combination of charts, numbers and words to show people who you are.

the example infographics are from Nicholas Feltron's 2007 annual report. He's the guru when it come to infographics about yourself: feltron.com/

Question?

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Math-Yes we can!!!!!!!





**KEEP
CALM
AND
LEARN
LANGUAGES**